Final Report

Survey of Lincoln Area Businesses about Skill and Training Requirements

Prepared for the Nebraska Department of Labor

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Executive Summary

This report discusses the results from the *Make it Work for Lincoln* survey of employers conducted by the University of Nebraska-Lincoln Bureau of Business Research (UNL-BBR). The survey of employers in the Lincoln Metropolitan Area was conducted under contract with the Nebraska Department of Labor and with the participation of the Nebraska Department of Economic Development and ATD-Lincoln. The report examines the types of occupations Lincoln area employers are searching for and hiring, and the types of difficulties employers face when hiring. The survey also asks about the types of training which employers provide.

Business responding to the survey reported facing difficulty when hiring workers for most types of occupations. Looking across all occupations, a majority of businesses reported that applicants with a lack of work experience and occupation-specific skills made it difficult to hire. More than four in ten also reported that applicants with a poor work history made it difficult to hire. Failed background checks and "too high" wage demands were cited by approximately one-quarter of employers. Taken together, these issues represent a wide array of challenges in hiring. However, a careful look at these issues by industry and occupation reveal patterns. In particular, employers hiring within a particular occupation may only face one or two significant difficulties, creating a more manageable problem with potentially more actionable solutions.

A lack of occupation specific skill was a particular concern for two white collar and two blue collar occupations. Among white collar jobs, the two occupations were managers and computer and mathematical occupations. Among blue collar jobs, the two occupations were installation, maintenance and repair workers and production workers. There may be a particular need to have training certification courses available in these occupations. Workers in blue collar occupations also would benefit from learning skills on the job whether through formal apprenticeship programs or through periods as helpers and other support occupations.

Poor work history and failed background checks were a more common concern for selected service workers and blue collar workers. Among services jobs, the occupations were health care support workers and food preparation and serving-related workers. Among blue collar jobs, there was a heightened concern about work history and failed background checks for construction workers and transportation and material moving workers. These results point to a second set of interventions beyond traditional training programs, particularly in these occupations. Specifically, some workers appear to have made themselves difficult to hire due to behaviors that led to a failed background check or a poor work history. One potential area for policy is to design and encourage pathways and practices whereby workers can improve their work history and address issues which are checked on background. Successful efforts in this

regard could be highly productive for workers. There also could be great benefits to the business community, which would benefit from expansion in the pool of employable workers.

Wage rates appear to be a barrier to hiring in a third set of occupations and industries. Businesses in these occupations reported an elevated share of job candidates who make wage demands which are "too high." This issue impacted the health care industry and four occupation groups in particular: business and professional operations, healthcare practitioners and technical workers, personal care and service occupations and office and administrative support occupations. In these occupations, employees, employers, or both need to adjust their wage expectations. Supply and demand conditions provide insight as to whether employers or workers need to adjust most. There is limited pressure for employers to raise wage scales for business and professional operations workers and office and administrative support workers. These were not occupations where employers had any especially difficult time finding new workers. On the other hand, personal care and service workers were the second most difficult occupation to find workers, according to employers.

The second goal of this report was to examine the training which businesses provide to newly hired workers. Respondents to the survey reported that businesses provide job-specific training to newly hired workers in 76 percent of occupations. More than half of employers provide training courses without a certification while over one-third provide certification courses. Less than one in ten employers provides a full college or community college course.

Large shares of new hires were provided training in all industries and occupations, although training was less common in several blue collar occupations including construction and extraction workers, production workers, and transportation and material moving workers. Certification courses were most common for computer and mathematical occupations, installation, maintenance and repair occupations, management occupations and personal care and service occupations. Full college or community college courses are most common for these same four occupations as well as for architecture, engineering and science occupations.

Nearly all workers who received training participated in in-house training. However, responding businesses indicated that out-of-house training was provided to new workers in 28 percent of occupations. Generally speaking, out-of-house training is more likely for new hires in higher skills white collar occupations, with the exception of personal care and service workers. Blue collar occupations are near average in the use of out-of-house training with the exception of the elevated share for installation, maintenance and repair workers. Out-of-house training is least common for lower skill and service occupations.

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1. Introduction

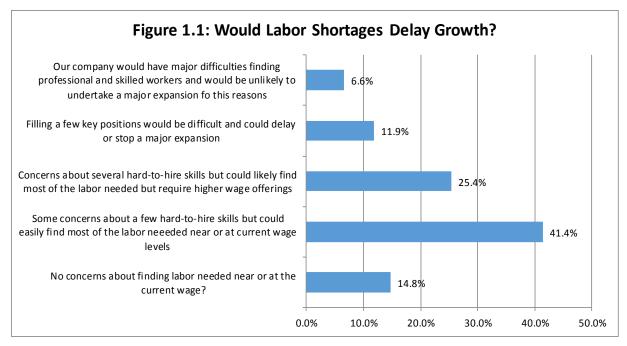
Labor availability is a critical issue for any regional economy. Regional economic development can be impacted when employers face an insufficient supply of workers with appropriate skills and work habits. This report discusses the results from a survey of employers in the Lincoln Metropolitan area conducted by the University of Nebraska-Lincoln Bureau of Business Research (UNL-BBR). The *Make it Work for Lincoln* survey was conducted under contract with the Nebraska Department of Labor and with the participation of the Nebraska Department of Economic Development and ATD-Lincoln. The report examines the types of occupations Lincoln area employers are searching for and hiring, and the types of degrees, certifications and skills that the employers require. The survey identifies occupations where employers have difficulty hiring, and the types of difficulties encountered. The survey asks about the types of training which employers provide.

The report is organized as follows. The survey process is discussed in Section II.

Section III describes the results of the survey. Section IV provides a profile of the top hiring occupations, that is, the occupations which employers were most commonly hiring. Section V provides a conclusion. Information about the University of Nebraska-Lincoln Bureau of Business Research and the project Principal Investigator is provided in Appendix 3.

But before turning to the survey methodology, several key results are presented below. These results show the importance of labor force issues. Table 1.1 shows the role of worker availability in economic development. Specifically, the *Make It Work for Lincoln* survey asked employers the following question: "If asked to consider a possible major expansion at this facility, which of the following best describes your evaluation of the ease of obtaining necessary labor?" The responses, both overall and by industry, are revealing.

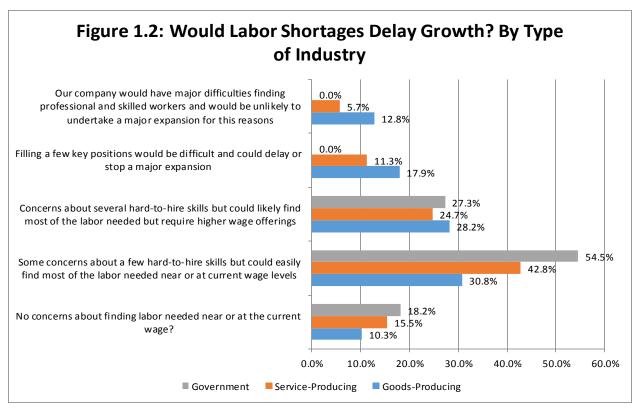
Nearly one in five businesses (18.5%) reported that difficulty with filling key positions could delay or even scuttle a plan for a major expansion in the Lincoln area. At the same time, only one in six businesses (14.8%) indicated that they would have no concerns in finding the needed labor. Fortunately, roughly two-thirds of businesses suggested there would be some difficulties but it would be possible to find the needed labor.

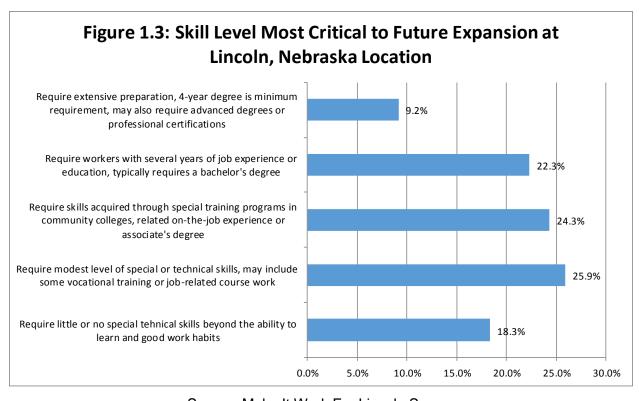


Results are even more interesting when presented for the major industry groupings: goods-producing businesses, service producing businesses and government employers. Goods-producing businesses include manufacturing, construction, agricultural processing, and utilities. Nearly three in ten goods-producing businesses reported that difficulty with filling key positions could delay or even scuttle a plan for a major expansion in the Lincoln area. Only one in ten of these businesses reported no concerns about finding needed labor. Results suggest that labor availability may be a barrier to growth in many goods-producing businesses such as manufacturing.

These results demonstrate the need for the current report. Challenges with finding labor are not just an operating concern for business, but rather a factor which is impacting economic development in the Lincoln area. This creates a need to develop a detailed understanding of the labor needs of Lincoln businesses, and the challenges these business face in recruiting workers.

Such research is needed because there is no easy answer to the question "What types of training and education do Lincoln workers need?" Figure 1.3 shows that multiple types of preparation are critical for the expansion of Lincoln area businesses.

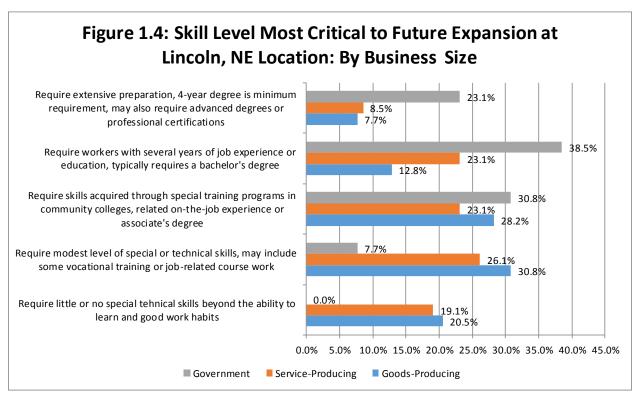




Source: Make It Work For Lincoln Survey

Only about one in five workers indicated a need simply for more workers, without a particular need for special or technical skills. Approximately one quarter of businesses indicated a need for workers with vocational training as critical for potential future expansion in the Lincoln area. A similar share of businesses indicated a need for workers with certificates programs in community colleges and associate's degrees. Nearly one in four businesses reported a critical need for workers with a bachelor's degree.

The report will address this variety in needs by looking at the requirements of specific groups of businesses, in order to identify pockets of worker training needs. For example, Figure 1.4 shows the most critical skill level for businesses by size. A much higher share of large businesses report a critical need for workers with a bachelor's degree. Small and medium size businesses are more likely to need workers with certificate or degree programs through a community college. Labor needs of businesses are examined in much more detail in the Chapters which follow. The first step, however, is to discuss the *Make It Work for Lincoln* survey which is the source of this data.



Source: Make It Work For Lincoln Survey

2. Details of the Business Survey

The *Make It Work for Lincoln* survey of employers was designed to gather detailed information on the hiring and training needs and priorities of Lincoln area businesses. That information is gathered through a series of questions which examine businesses preferences for hiring, hiring challenges, key hiring needs, education and training requirements and plans for further training once hired. A copy of the *Make It Work for Lincoln* survey is in Appendix 2. The survey was developed with in conjunction with the Nebraska Department of Labor (NDOL), the Nebraska Department of Economic Development (NEDED) and ATD-Lincoln.

The survey begins by asking some basic questions about the employment conditions at each establishment such as the age of the business, the share of part- and full-time employees, the share of seasonal employees, the current number of job openings, where the business advertises these openings, and preferences for hiring workers in the same occupation and industry. The initial section of the survey also asks about the role of labor availability in potential expansion, gathering the types of information displayed in Figures 1.1 through 1.4. The second section of the survey asks detailed questions about the three most common occupations that each firm is trying to hire or hired recently. Respondents are asked to name and describe each occupation, report average starting wage, minimum required education, licenses and certificates, whether and where training is provided for new employees, whether it is difficult to find workers for the occupation and why. Businesses are also invited to name any other occupations where it is difficult to hire workers. The survey concludes by asking businesses about their current employees including benefits.

The survey was to be mailed to all establishments in the Lincoln Metropolitan Statistical Area (Lancaster and Seward Counties) with 20 or more employees. Employment was defined as the average number of employees in the fourth quarter of the 2013 as measured by the Department of Labor's Quarterly Census of Employment and Wages. That census includes all employers which are covered by the unemployment insurance program, implying that it covers most employers with 20 or more employees outside of the agricultural industry. The sample included 1,363 establishments located in Lancaster County, Nebraska and 51 establishments in Seward County, Nebraska. Most establishments were private employers but local governments such as cities, counties and school districts were included as were departments of state government.

A review of the establishment list yielded cases where multiple establishments of the same businesses were located in the same or adjacent address and listed as operating in the same industry. In these cases, there may have been a single group of human resource

personnel, and leadership in general, overseeing the different establishments. Further, such personnel may not have delineated the employees along the same lines as the business establishment definition utilized by the Department of Labor. Personnel may have been confused in receiving multiple surveys and multiple survey responses may have pertained to overlapping groups of workers. Under these circumstances, co-located or adjacently located establishments were combined so that a single mailing was sent. After such combinations, the final survey list included 1,323 establishment locations.¹

The *Make It Work for Lincoln* survey was conducted by mail. A post-card was sent announcing that the survey was underway, the purpose of the survey and that the recipient would receive the survey. Approximately one week later the initial survey mailing was sent. Businesses which did not respond to the initial survey received a second survey about three weeks later. And, as necessary, a third survey was sent three weeks after that.

A total of 249 complete surveys² were received as a result of the three mailings for an 18 percent response rate. Surveys gathered a significant amount of detailed information about responding business, which may have limited the response rate. Table 2.1 shows the breakdown of responding businesses according to business size and industry groupings. Results show that many of the responding businesses are business with less than 50 employees and are service businesses. This result is consistent with our approach of surveying all Lincoln MSA establishments with 20 or more employees. The survey did not specifically target goods procuring businesses or larger employers.

Turning to specific figures, 62 percent of respondents were businesses with between 20 and 50 employees. These are designated as small businesses in the discussion of the survey. Another 17 percent of businesses have between 50 and 100 employees. These are designated

¹ Establishment lists from the Quarterly Census of Employment and Wages provided a comprehensive source for Lincoln area businesses with 20 or more employees. Contact names on the list, however, often corresponded to the accounting firms or other financial representatives of businesses, rather than the address of the business owner or manager. This created a need to develop contact names for the mailings. In many cases, contact names were provided by ATD-Lincoln or businesses lists provided by the Lincoln Chamber of Commerce. In other cases, the UNL-Bureau of Business Research team was able to determine appropriate contact names via an on-line search. In other cases, the contact "owner/manager" was used in the mailing.

² Responses demonstrated the typical decay in response rates with each additional mailing. There were 142 responses to the first survey mailing, 66 responses to the second survey mailing and 41 responses to the third mailing. Therefore, there would have been limited potential to increase the aggregate response with a fourth mailing.

as mid-size businesses. Approximately 21 percent of respondents were large employers with 100 or more employees.

Table 2.1: Profile of Responding Businesses

	Responses			
Group	Number	Share		
Size of Business				
Small (Less than 50 employees)	155	62.2%		
Mid-size (50-100 employees)	43	17.3%		
Large (More than 100 employees)	51	20.5%		
Industry				
Goods-Producing	39	15.7%		
Service-Producing	197	79.1%		
Wholesale and Retail Trade	36	14.5%		
Health Care	48	19.3%		
Other	113	45.4%		
Government Nation It Work for Line	13	5.2%		

Source: Make It Work for Lincoln Survey

Goods-producing businesses counted for roughly 16 percent of respondents. The goods-producing category primarily includes manufacturers and construction businesses but also includes one or two agricultural service-providers or a utility. Just 5 percent of respondents were local governments or a State of Nebraska agency. Services businesses accounted for 79 percent of respondents.

Services is a broad category which includes trucking and warehousing, wholesale and retail activity, finance and insurance, information, professional and business services, health care services, leisure and hospitality, and personal services. The sector includes a large majority of the businesses in the economy with more than 20 employees as well as a large majority of the respondents to the *Make It Work for Lincoln* survey. Table 2.1 also lists the number of responses received from businesses in two primary services sectors. There were 36 responses from wholesale and retail traded businesses and 48 responses from health care businesses.

Table 2.2 shows several key employment characteristic of the survey responses including the number of years the business has been operating, the average share of full-time versus part-time workers, the average share of seasonal workers, the current number of job openings on average and the share of respondents which had hired or attempted to hire over

the last two years. Given the focus on establishments with 20 or more employees, it was expected that the sample would primarily include older, established firms. After all, most new establishments start small and grow over time. Larger new branches or franchises do locate each year but the number of such cases is limited in a metropolitan area with a population of 300,000. Finally, given that our sample was drawn from the 4th quarter of 2013 most new establishments would already be one year old by the summer and fall of 2014, when the survey was completed. However, it is notable that 85 percent of respondents had been in business for more than 10 years, while just 7 percent had been in business for 1 to 5 years and the same percentage 6 to 10 years Respondents primarily provided full-time employment. Based on a simple average across the responding businesses, 72 percent of jobs were full-time versus 28 percent part-time. This was an average across respondents and responses were not weighted by total firm employment. Only 5 percent of jobs at responding business were seasonal.

Responding businesses also were very active in the labor market, with 98 percent of respondents reporting that their business hired or tried to hire employees during the last two years. Respondents also had job openings. On average, responding businesses reported having 5 job openings at the time that the survey was completed.

Table 2.2: Employment Characteristics of Responding Businesses

Measure	Value or Share
Years in Operation	
Less than 1 year	0.4%
1 to 5 years	7.2%
6 to 10 years	7.2%
More than 10 years	85.1%
Percentage of Employment	
Full-Time	71.7%
Part-Time	28.3%
Seasonal	5.2%
Average Current Job Openings	5.0
Hired or Tried to Hire Last Two Years	98.4%

Source: Make It Work for Lincoln Survey

The survey respondents therefore are established firms, which primarily provide full-time and full-year employment, and which have a significant number of current job openings and have been active in hiring over the last two years. While it may have been desirable to reach a larger sample of young firms, the respondents otherwise are an appropriate group for study in order to provide insights about hiring and training in the Lincoln Metropolitan Area.

3. Results of the Survey

This section describes the key results from the *Make It Work for Lincoln* employer survey, including information on the types of workers businesses seek to hire and the occupation skills of these workers. Results are presented for all businesses and by industry. Results also are presented for occupation groups, revealing the education and certification requirements that local employers have for these occupations. Results are presented first for newly hired workers before discussion turns to job characteristics for the existing workforce.

A. Hiring Workers

One preliminary concern is the employment and occupation background of workers which businesses hire. In particular, business may strongly consider working status implying a preference to hire currently employed workers. As seen in Figure 3.1, nearly one in five businesses indicated that employment status is strongly considered. Just over four in ten indicate that employment status is somewhat considered. Just less than four in ten indicate that current employment status is considered only slightly or not considered at all. This last result is encouraging as it suggests that a significant minority of businesses are very open to hiring workers who are unemployed or re-entering the workforce. Results also suggest that a majority of businesses have a preference, and perhaps even a strong preference, for hiring workers who are currently working. This has positive implications for economic development in a city such as Lincoln with a low unemployment rate.

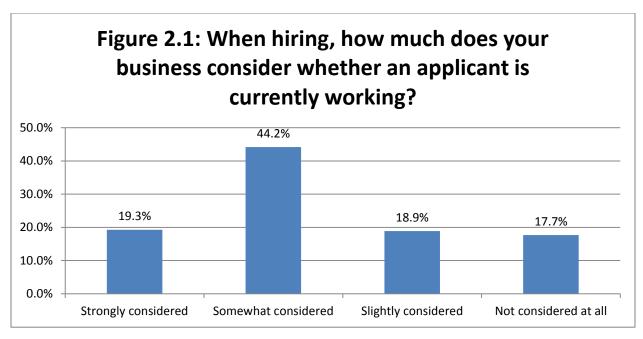
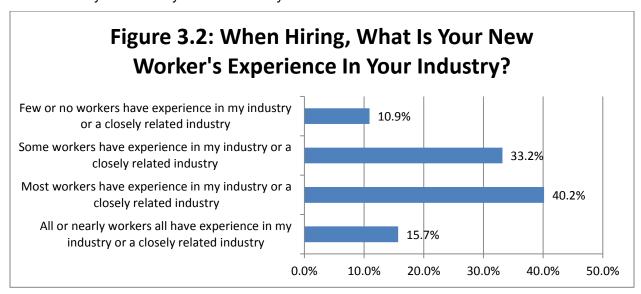


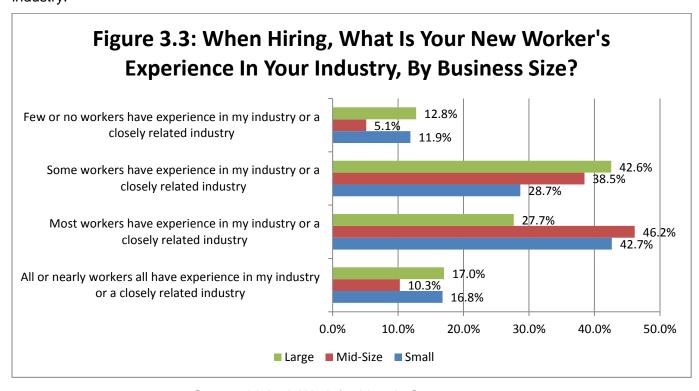
Figure 3.2 shows the industry tendencies of businesses when hiring. Specifically, the figure shows the share of new hires who were in the same industry or a closely related industry. Businesses showed willingness to hire workers from other industries. Just 16 percent of businesses indicated that all or nearly all of the hired workers are from the same industry or a closely related industry. That said, most workers businesses tended to hire workers from the same industry. Four in ten businesses indicated that most hired workers had experience in the same industry or a closely related industry.



Source: Make It Work for Lincoln Survey

The remaining 44 percent of businesses indicated that only few or some workers had experience in the same industry. These results suggest substantial potential for workers to transition to opportunities in new industries. In many cases, workers can transition from unrelated industries. In other cases, there are at least opportunities to transition from closely-related industries.

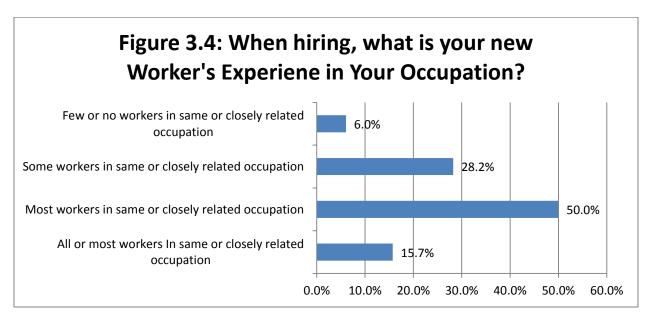
A key question is whether the patterns observed in Figure 3.2 hold across different types of businesses. This is explored in Figure 3.3, which shows the industry hiring tendencies reported by small, mid-size and large businesses. Large employers are particularly likely to hire workers from different industries. Over 55 percent of large businesses indicated that some or even only a few of their newly hired workers were from the same industry or a closely related industry.



Source: Make It Work for Lincoln Survey

Figure 2.3 looks at these same issues from an occupation perspective. Specifically, the figure shows the share of new hires who were in the same occupation or a closely related occupation. Businesses appear to favor occupation experience even more than industry experience. Once again, just 16 percent of businesses indicated that all or nearly all of the hired workers are from the same occupation or a closely related occupation. But a full 50 percent of respondents indicated that most workers are in the same occupation or a closely related

occupation. Only 6 percent of firms reported having few or no workers from the same occupation. Opportunities remain for workers to change occupations but are more limited than the opportunities for changing industries.

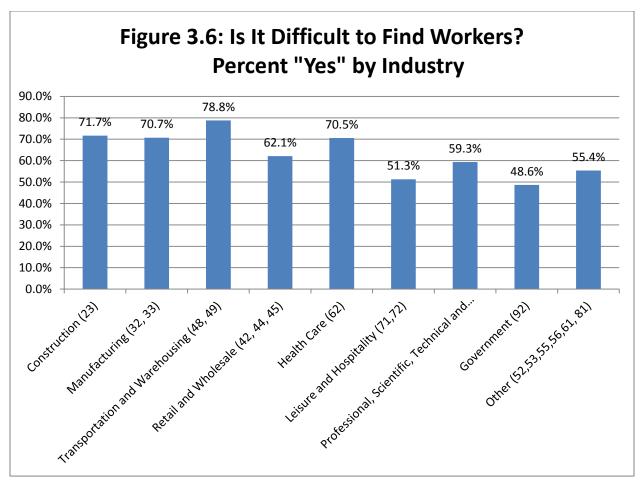


Source: Make It Work for Lincoln Survey

Results from Figure 3.4 confirm the important role that experience within an occupation plays in hiring. Finding workers with that relevant background may be a challenge for business hiring. Figures 3.5 and 3.6 takes a look at challenges businesses face in hiring. The survey asked employers to name the three most common occupations searched for when hiring. The survey then inquired whether or not it was difficult for businesses to find each of these workers, and if there were difficulties, why? Responses are summarized in the two figures. Figure 3.5 looks at how often it was difficult to find workers. Businesses reported 62.5 percent of the time that it was difficult to find workers. This implies that for every 8 workers hired businesses have trouble finding workers for 5 of those positions.

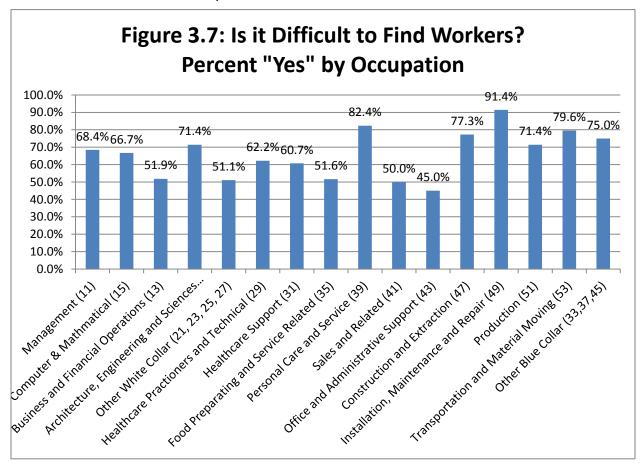


One natural question is whether it as difficult to find workers in all industries or occupations, or if the result of 62.5 percent reflects some industries and occupations where it is very difficult to find workers and others whether the challenge is less severe. Figure 3.6 addresses this question by showing the percentage of businesses in each industry which answered "yes" to the question "Is it difficult to find workers?" Results indicate that it is nearly always difficult to find workers in the transportation and warehousing industry. Further, seven out of ten manufacturing businesses, construction businesses and health care businesses reported it was difficult to find workers. On the other hand only about one half of employers in the leisure and hospitality industry reported that it was difficult to find workers. Further, approximately one half of government agencies such as school districts, cities or state agencies indicated it was difficult to find workers. Overall, the challenge in finding workers was broadbased but was especially elevated transportation and warehousing, construction, manufacturing and health care businesses.



The contrasts are even more striking looking at results by occupation in Figure 3.7. Blue collar workers are especially difficult to find, at 91 percent for installation maintenance and repair workers, 80 percent for transportation and material movers, 77 percent for construction workers and 71 percent for production workers. Also very difficult to find are personal care and service workers, at 82 percent. These workers primarily are employed in the health care industry or as childcare workers. Interestingly, it is somewhat less challenging to find workers for higher skill occupations in the health care industry such as health care practitioners (nurses, doctors), and healthcare support workers (nursing assistants). For these occupations, just over 60 percent of employers reported it was difficult to find workers, in line with the overall result of 62.5 percent. Also interesting was the finding that computer and mathematical occupations also were only slightly above that overall result, even with the persistent difficulties in finding personnel in software development, computer programming and other such occupations. The share of businesses reporting difficulty in finding management occupations, at 68 percent, as

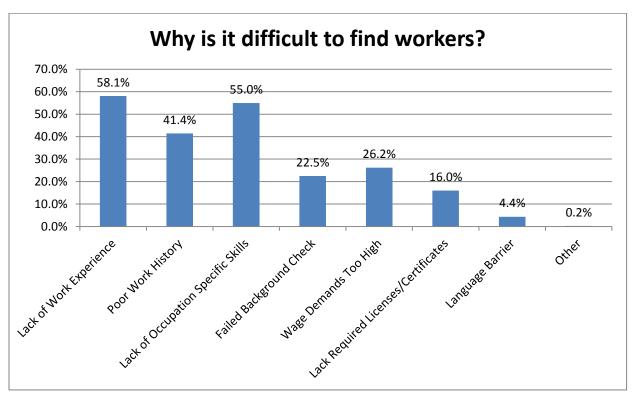
well as architecture, engineering, and science occupations, at 71 percent, also was somewhat above the overall result of 62.5 percent.



Source: Make It Work for Lincoln Survey

There were, however, groups of white collar occupations where business found a more modest level of difficulty in finding workers. Business reported that it was difficult to find business and financial operations workers (accountants, analysts) just 52 percent of the time while other white collar workers (teachers, social workers, lawyers) were difficult to find 51 percent of the time. One possible explanation is that search for workers in these occupations is aided by the large number of graduates in these occupations from local universities. Business also reported a more modest level of difficult in finding food preparation and service occupations, at 52 percent, sales and related occupations, at 50 percent, and office and administrative support occupations, at 45 percent.

Table 3.8 reports on the reasons firms have difficulty finding workers. Businesses were allowed to choose all reasons which applied. This follow-up question, naturally, was only asked in cases where firms indicated that workers in a particular hiring occupation were difficult to find.



Source: Make It Work for Lincoln Survey

Lack of work experience was the most common concern and a serious concern. Worker skill partly results from education and training but "learning by doing" through on-the-job experience is also a powerful source of workers skill. Experience also builds team work, reliability, and other characteristics which are valued by employers. A similar share of businesses reported a lack of workers with occupation specific skills. This is consistent with earlier findings that employers most often hire workers with experience in the same occupation or a closely related occupation. Occupation skills also can be developed through training and education though it will be critical to find those occupations which are "in demand" in the market place, that is, the skills which employers are looking to hire. In a related result, respondents indicated that for 16 percent of occupations it was difficult to hire because candidates lacked required licenses and certificates.

Some of the other results in Figure 6 are equally as interesting. For just over 41 percent of hiring occupations, respondents indicated that it was difficult to find workers due to a poor work history. A failed background check was mentioned by respondents for 22.5 percent of the occupations.

These results in Figure 3.8 show a breadth of challenges faced by employers. Employers face three issues related to experience, occupation skill and work history in at least 40 percent of the searches. That is a daunting task. However, these data represent averages across all industries and occupations. The nature of the challenges could vary by industry. For example, see Table 3.1 which shows difficulties in finding workers by industry.

In both construction and manufacturing, difficulties in finding workers due to a lack of work experience and occupation specific skills are especially acute, as is a poor work history. However, challenges due to wage demands or the need for specific certifications are less problematic in construction and manufacturing. In these industries, the use of lower-paid apprenticeships, whether formal or through periods of serving as a "helper" or "laborer," could help prepare a larger workforce. These also may be an emphasis on helping to re-intergrate workers with a poor work history. Some of these workers may be able to do better going forward, but will need to be given opportunities to build their resume.

Concerns about a lack of work experience were common to most industries but industries differed greatly regarding the importance of work history, and the related issue of background checks. Concerns about a poor work history or failed background checks were minimal in the professional, scientific and technical services industry and information industry. On the other hand, concerns about a poor work history were heightened in the leisure and hospitality industry. Failed background checks substituted for work history in transportation and warehousing.

Table 3.1: Why It is Difficult to Find Workers by Industry

	Reason Why It is Difficult to Find Workers							
Industry Names (NAICS Code)	Lack of Work	Poor Work	Lack of Occupation	Failed Background	Wage Demands	Lack Required Licenses/	Language	Othor
Industry Names (NAICS Code)	Experience	History	Specific Skills	Check	Too High	Certificates	Barrier	Other
Construction (NAICS 23)	68%	58%	61%	26%	16%	13%	5%	0%
Manufacturing (32, 33)	72%	59%	66%	24%	17%	7%	3%	0%
Transportation and Warehousing								
(48, 49)	42%	27%	46%	42%	12%	46%	8%	0%
Retail and Wholesale (42, 44, 45)	49%	39%	58%	27%	17%	10%	3%	2%
Health Care (62)	58%	40%	54%	13%	46%	21%	4%	0%
Leisure and Hospitality (71,72)	70%	63%	40%	25%	10%	10%	3%	0%
Professional, Scientific, Technical								
and Information (51, 54)	54%	14%	60%	0%	14%	11%	0%	0%
Government (92)	50%	33%	44%	33%	28%	11%	0%	0%
Other (52,53,55,56,61,81)	56%	39%	56%	29%	39%	15%	6%	0%
Total	58%	41%	54%	23%	26%	16%	4%	0%

Table 3.1 also reveals some interest industry variation regarding wage demands. Wage demands which were "too high" had been a moderate source of difficulty in finding workers for business overall, at 26 percent. The issue of wage demand, however, is elevated in some industries. In particular, 46 percent of businesses in the health care industry reported that "too high" wage demands were a source of difficulty in finding workers. This concern also was more common, at 39 percent, in the "other" industry, which notably contains banking and insurance businesses. At the same time, concerns about "too high" wage demands were less problematic in all of the other industries, typically running in the range of 10 percent to 20 percent.

Occupation specific skills were a concern of employers across industries. Occupation specific skills were a source of difficulty for at least 50 percent of occupations for nearly all industries and were a source of difficulty for 66 percent of manufacturing occupations. These widespread concerns about occupation skill point to the central role of training in preparing the state's work force. The training habits of Lincoln Metropolitan Area employers are the focus of the next section of the report. However, before turning to training, results for hiring are reexamined by occupation. This analysis provides even a higher level of granularity, and provides more insights into how the hiring challenges faced by employers vary on a case by case basis.

Table 3.2 reports the difficulties that employers faced when hiring by major occupation group. Individual occupation groups are reported separately when sufficient observations were available. Results are shown for management occupations, a set of other white collar occupations, service occupations, and blue collar occupations. Analysis begins by looking at white collar occupations. In those occupations, very few employers reported that a poor work history and failed background checks were a source of difficulty in finding workers to hire. A lack of occupation specific skills, however, was a frequent concern, particularly for managers and computer and mathematical occupations. These results suggest significant opportunity for training to prepare individuals for careers in computer occupations such as computer programming or software development. "Too high" wage demands are a concern in some of these white collar occupations, in particular among business and financial operations workers.

These results were confirmed in another part of the *Make It Work For Lincoln* survey, when employers were asked to name other occupations which were difficult to search for, even if when the employer did not search for these occupations in large numbers. While relatively few businesses responded to this question, white collar occupations accounted for about 45 percent of the occupations named. Computer and mathematical occupations were especially common. Employer responses on why it was difficult to hire these workers were similar. Occupation-specific skills were the most common concern. Wage requirements also were a concern.

Table 3.2: Why It is Difficult to Find Workers by Occupation

	Reason Why It is Difficult to Find Workers							
Occupation Names (SOC Code)	Lack of Work Experience	Poor Work History	Lack of Occupation Specific Skills	Failed Background Check	Wage Demands Too High	Lack Required Licenses/ Certificates	Language Barrier	Other
Management (SOC 11)	46%	15%	85%	0%	15%	0%	0%	0%
Computer & Mathematical (15)	50%	8%	83%	0%	25%	17%	0%	0%
Business and Financial Operations (13)	57%	7%	64%	7%	50%	0%	0%	0%
Architecture, Engineering and Sciences (17, 19)	50%	0%	50%	0%	5%	5%	0%	0%
Other White Collar (21, 23, 25, 27) Healthcare Practitioners and Technical (29) Healthcare Support (31)	83% 43% 41%	13% 18% 76%	61% 39% 29%	9% 4% 18%	30% 43% 29%	30% 21% 24%	0% 4% 0%	0% 0% 0%
Food Preparation and Service Related (35) Personal Care and Service (39) Sales and Related (41)	72% 75% 65%	69% 46% 35%	38% 68% 55%	31% 25% 19%	9% 43% 29%	9% 25% 3%	0% 14% 6%	0% 0% 0%
Office and Administrative Support (43) Construction and Extraction (47)	62% 68%	44% 62%	66% 62%	20% 35%	38% 29%	4% 12%	2% 6%	0% 0%
Installation, Maintenance and Repair (49) Production (51)	59% 70%	38% 60%	75% 75%	13% 15%	16% 10%	25% 5%	0% 15%	3% 0%
Transportation and Material Moving (53) Other Blue Collar (33,37,45)	31% 50%	44% 83%	26% 33%	51% 72%	13% 28%	49% 6%	5% 11%	0% 0%

Too high" wage demands also are a frequent concern for healthcare professional and technical occupations. This difficulty was selected by 43 percent of employers for these occupations. Interestingly, fewer employers were concerned about experience and occupation skill than in most other occupations. An adjustment of market wage rates in Lincoln may be sufficient to address any unmet need for workers in these occupations. "Too high" wage demands also were a concern for personal care and service occupations, again in 43 percent of cases. Many of these personal care workers work in a health care setting of group homes while most others are childcare workers. There is also a broader set of concerns for personal care and service workers, with a large majority of employers also expressing concern about occupation specific skill and work experience. The third occupation group closely tied to the health care industry is healthcare support occupations. Poor work history, cited by 76 percent of employers, was the primary concern for this occupation category, rather than skill and experience.

Poor work history and failed background checks were a more common concern for food preparation and service occupations as well. An elevated share of employers also expressed concerns about "too high" wage demands when hiring office and administrative support workers. These concerns were not elevated for sales and related occupations.

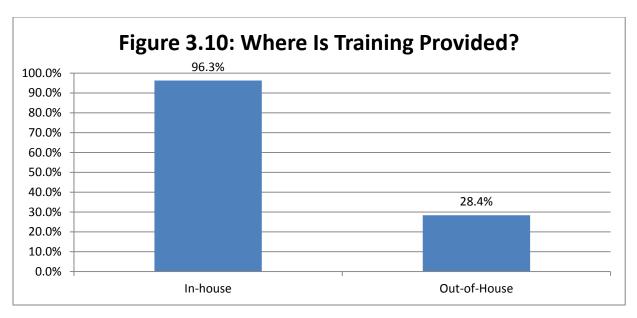
Turning to blue collar occupations, there was also a heightened concern about work history and failed background checks for construction occupations and transportation and material moving occupations. A higher share of employers also reported a lack of work experience and occupation-specific skills as a difficulty in hiring for blue collar occupations. The lack of occupation specific skills was a particular concern for installation, maintenance and repair occupation and for production occupations. This was cited as a difficulty by 75 percent of employers hiring in these occupations. This suggests a significant need for training programs among businesses employing blue collar workers. A need for licenses and certifications also was reported as challenge for employers hiring in transportation and material moving occupations and installation, maintenance and repair occupations.

Figure 3.9 reports on whether job-specific training is provided by Lincoln Metropolitan Area employers after workers are hired. Employers responded that job-specific training is provided to new workers in three quarters of the occupations reported in the survey. Results were fairly consistent by industry and occupation and are reported in Figure 3.9a and Figure 3.9b in Appendix 1.



In terms of industries, the share of new workers receiving training was over 80 percent for health care workers and workers in the "other" industry, which includes banking and insurance. The share was around 65 percent for construction and leisure and hospitality. In terms of occupation, the share was above 95 percent for personal care and services workers which includes childcare workers and personal care aides, the latter being an important occupation in retirement homes and other institutional settings. The share is above 80 percent for health practitioners and technical workers. The share was also over 80 percent for retail sales workers. The share was between 65 percent and 70 percent for food preparation and serving occupations and transportation and material moving occupations.

While there were small differences in some industries and occupations, the overall pattern was that job-specific training was provided to newly hired workers throughout the Lincoln economy. Another question is where that training is taking place. Is it only occurring "in house" at the business? If off-site training "out of the house" is occurring, how often is it used? Results for top hiring occupations are reported below in Figure 3.10. As anticipated, nearly all employers who provide job specific training to new workers choose to provide some in-house training. Just over one quarter (28.4 percent) provide out-of-house training as well. This suggests ample need for out of the house training as well as for training providers to bring training opportunities into the state.



Results regarding in-house training in Figure 3.10 hold for all industries and occupations. The share of employers providing job-specific training in house is above 90 percent in all cases. Shares providing out-of-house training, however, vary quite a bit by industry and occupation. Shares are above 90 percent for all industries and occupations.

Figure 3.11 shows the shares of out-of-house training by industry. Shares were fairly consistent across industries, ranging from 19 to 37 percent, depending on the industry. Even these narrow ranges, however, are of interest to businesses and institutions involved in the training industry. Opportunities to provide out-of-house training are twice as high in some industries as in others. Reviewing the results in Figure 3.11, out-of-house training for new workers was most common in the retail sales industry and in the health care industry. Recall that these were the two industries which also reported the highest share of new workers who received training. The need for training, and the opportunities to provide training, is even more pronounced in these two particular industries than results in Figure 3.11 suggest. Shares were also above 30 percent for manufacturing and transportation and warehousing occupations. Out-of-house training was least common in construction and the leisure and hospitality industry. These were the two industries which reported the lowest share of new workers who received job-specific training.

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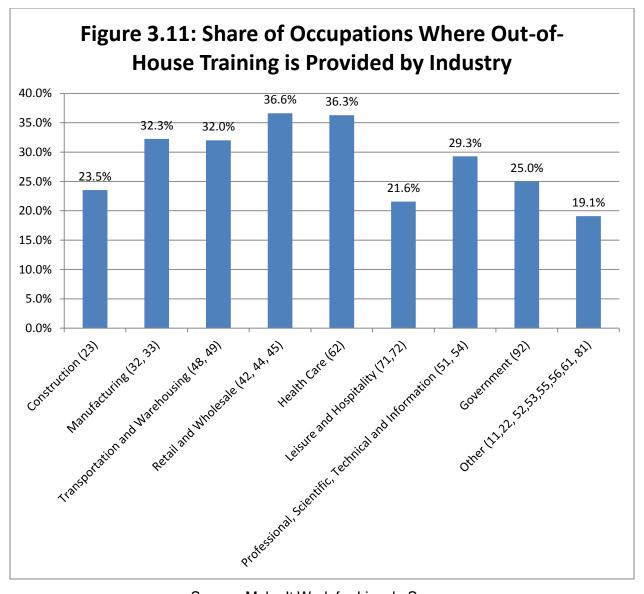
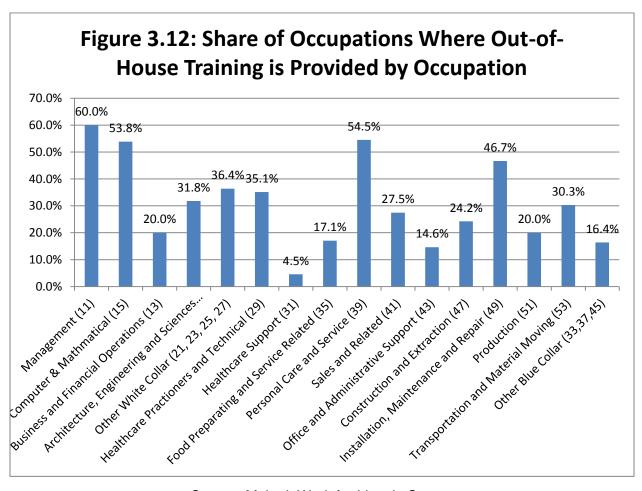


Figure 3.12 shows the share of out-of-house training by occupation. Employers provide out-of-house training for over half of new workers in three groups of occupations: managers, computer and mathematical occupations, and personal care and service occupations. Shares also were elevated for architects and engineers, who are typically required to engage in continuing education courses. Lower shares are found for health care support occupations and for office and administrative support occupations.as well as food preparation and serving workers. Generally speaking, out-of-house training is more likely for new hires in higher skills white collar occupations, with the exception of personal care and service workers. Blue collar occupations are near the all industry average with the exception of the elevated share for

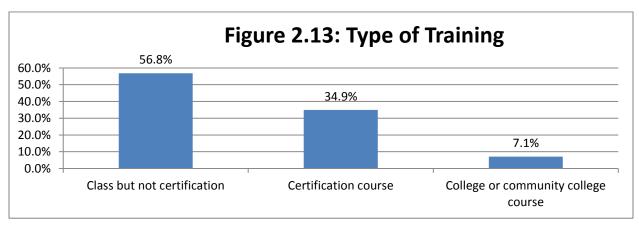
installation, maintenance and repair workers. Out-of-house training is least common for many lower skill and service occupations.



Source: Make It Work for Lincoln Survey

The next natural question is what type of training do employers prefer to provide? Figure 3.13 begins to answer that question. Generally speaking, the interest or ability to provide training appears to fall as the time commitment rises. This is not surprising given the time and dollar costs of training for employers. More than half of employers provide classes to their employees but not full certification courses. The result does show that the majority of employers are providing formal and structured training. A full certification course, which would include multiple classes or on-line training sessions yielding a skill certification are provided by more than one-third of employers. This result again demonstrates a significant commitment to training on the part of employers after employees are hired. Just 7 percent of employers provide full college or community college courses for their employees. A number of employers also

indicated that they provided "other" types of training but an analysis of specific answers revealed that the employers were primarily referring to on the job training.



Source: Make It Work for Lincoln Survey

Table 3.4 shows the type of training by industry. The share of workers provided with a training class is similar across industries. The greatest difference is in the share of worker provided with a college or community college course. Just over one in five newly hired manufacturing workers are provide with such a course and more than 10 percent of professional, scientific, and technical workers and information workers.

Table 3.3: Type of Training by Industry

			College or
	Class but no	Certification	Community College
Industry	certification course	course	Course
Construction (23)	52.9%	35.3%	0.0%
Manufacturing (32, 33)	41.9%	19.4%	22.6%
Transportation and Warehousing (48, 49)	60.0%	16.0%	0.0%
Retail and Wholesale (42, 44, 45)	63.4%	35.2%	1.4%
Health Care (62)	58.4%	39.8%	7.1%
Leisure and Hospitality (71,72)	45.1%	41.2%	2.0%
Professional, Scientific, Technical and			
Information (51, 54)	53.7%	31.7%	12.2%
Government (92)	60.7%	28.6%	14.3%
Other (52,53,55,56,61, 81)	61.8%	36.4%	9.1%

Source: Make It Work for Lincoln Survey

Table 3.4 shows the type of training by occupation. Training is common in all occupations although less common in a number of blue collar occupations including construction and extraction workers, production workers, and transportation and material moving workers. Certification courses were most common for computer and mathematical occupations, installation, maintenance and repair occupations, management occupations and personal care and service occupations. Full college or community college courses are common for these same four occupations and are most common for architecture, engineering and science occupations.

Table 3.4: Type of Training by Occupation

			College or
	Class but no	Certification	Community College
Occupation	certification course	course	Course
Management (11)	60.0%	53.3%	26.7%
Computer & Mathematical (15)	69.2%	61.5%	15.4%
Business and Financial Operations (13)	65.0%	35.0%	5.0%
Architecture, Engineering and Sciences (17, 19)	40.9%	22.7%	31.8%
Other White Collar (21, 23, 25, 27)	60.6%	39.4%	6.1%
Healthcare Practitioners and Technical (29)	43.2%	32.4%	2.7%
Healthcare Support (31)	63.6%	27.3%	0.0%
Food Preparation and Service Related (35)	46.3%	43.9%	0.0%
Personal Care and Service (39)	72.7%	60.6%	12.1%
Sales and Related (41)	66.7%	21.6%	2.0%
Office and Administrative Support (43)	58.5%	26.8%	7.3%
Construction and Extraction (47)	48.5%	27.3%	3.0%
Installation, Maintenance and Repair (49)	53.3%	56.7%	13.3%
Production (51)	45.0%	30.0%	10.0%
Transportation and Material Moving (53)	54.5%	24.2%	0.0%
Other Blue Collar (33,37,45)	50.8%	39.3%	0.0%

Source: Make It Work for Lincoln Survey

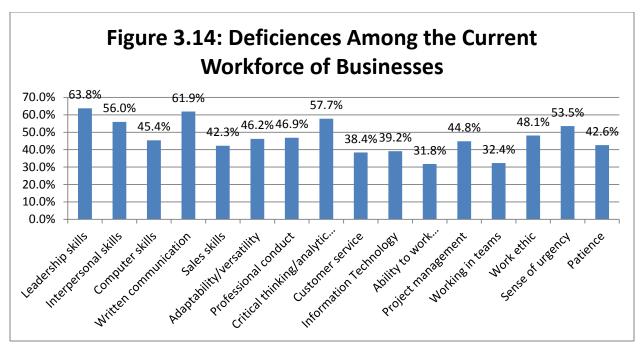
B. Existing Workers

The Make It Work For Lincoln survey also examined the characteristics of existing jobs and the existing workforce. Following up on the previous section, one question in the survey asked employers about any "deficiencies" they have observed in their current workforce. Specifically, that question asked "Do you find deficiencies among your current workforce in the following areas?" Figure 3.14 shows their responses. As always, employers were allowed to select all answers that applied.

Results indicate that leadership, written communications and critical thinking/analytic skills are the most commonly perceived deficiencies amount current workers. These are among the more sophisticated skills that students are supposed begin building through education and then build up in the future through practice both in and out of the workplace. These results send a clear message to educators that it is critical to continue to devote resources to building these skills and perhaps devote even further resource. These results also send a clear message to students and employees that they must devote themselves to writing and analytic assignments, despite the rigor involved in order to prepare themselves for the workforce and look for opportunities to maintain and build these skills after schooling is complete. This will be the key to being among the 40 percent of workers who are not deficient in written communication, critical/analytic thinking and leadership skills.

Interpersonal skills are another common deficiency among workers. This result emphasizes to employees that building relationships is important to work. The result also emphasizes to parents that helping children develop these skills is an important part of their upbringing. Patience also may be a specific example of an interpersonal skill.

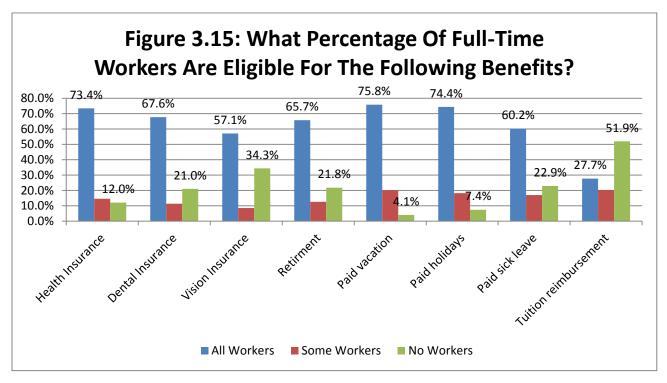
Another common and related set of skill deficiencies involve work ethic, a sense of urgency and adaptability/versatility. These deficiencies were reported by approximately 50 percent of employers. These concerns reflect that employers are looking for team members as well as workers with a set of particular technical skills or job skills. Employers are looking for workers who understand and buy into the mission and goals of the organization, and adapt to meet challenges as they arise with the same vigor as employers. Employers often hope to share the responsibility and work ethic required to meet deadlines, satisfy clients, or win new business. Employees that share that burden create value for employers.



Employers were less likely to select specific "hard" skills that are often an emphasis of education and training such as computer skills, information technology, working in teams, project management and sales skills. These skills have been a point of emphasis in education in recent years and perhaps should be an even greater point of emphasis. The lower frequency with which these deficiencies have been selected could indicate that education and training in this area has been effective. But, there is another potential explanation. It could that these skills, while needed in many occupations, are not needed as often as universal soft skills like work ethic or leadership. This may in some cases be the reason for the lower percentages observed in Figure 3.14.

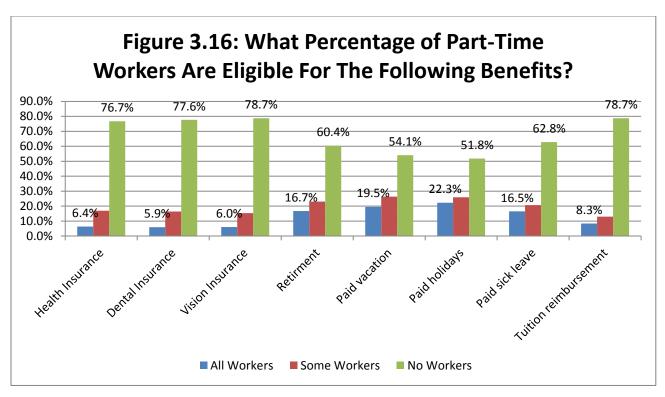
The survey also gathered detailed information about the benefits provided to workers. This information pertains to the ability of businesses to retain their workforce. As seen in Figure 2.15, survey results reveal that major benefits are received by all full-time workers in three-fifths to three-quarters of businesses. All workers in three-quarters of firms receive health care benefits, paid vacation and paid holidays. All workers in 65 percent of businesses receive retirement benefits. Dental insurance is available to all workers in 68 percent of businesses and vision insurance in 58 percent. These benefits also are provided to some workers in another ten to twenty percent of businesses. Naturally, the value of all these benefits depends on the specific programs offered in each business. The survey also included a question about tuition

reimbursement; give the emphasis on work skill in the survey. This benefit was provided to all workers in 28 percent of businesses and some workers in 20 percent of businesses.



Source: Make It Work for Lincoln Survey

As would be expected, the level of benefits provided to part-time workers is substantially less. Only 6 percent of business reported providing health insurance coverage to all of their part-time workers while 18 percent reported providing it to some part-time workers. Similar results were reported for dental and vision insurance as well as for tuition reimbursement. Retirement benefits, paid vacation and paid holidays were provided more often to part-time workers. Retirement benefits were paid to all workers in 17 percent of responding businesses and were provided to some part-time workers in 23 percent of businesses. A paid vacation benefit was provided to all part-time workers in 20 percent of businesses and to some workers in 25 percent of businesses. Part-time workers received paid holidays in a slightly larger percent of businesses.



Source: Make It Work for Lincoln Survey

4. Profile of Selected Occupations

This section provides a summary of information gathered for a set of key occupations throughout the economy. The occupations were chosen because each was mentioned by a significant number of employers as one of the top three occupation titles the employer had been searching for in recent years. The occupations also were chosen to represent a variety of education and training needs. Some commonly hired but lower skill occupations were not included; 9 particular occupations are listed.

Software Developers is the first occupation listed, in Table 4.1. This occupation provides high wages, with an average hourly wage (either reported directly or obtained by dividing the annual salary by 2,000 hours), of over \$29. There also was substantial variation in reported wages. This high wage occupation was open to Associate's Degree holders. More than 80 percent of employers reported that it was difficult to hire workers in this occupation. A lack of occupation skills was mentioned by 50 percent of employers but the principal problem in hiring was simply a lack of workers in this field residing in Lincoln. Nearly half of businesses hiring these workers would provide certificate courses and provide training in an out-of-house setting.

Registered Nurse is the second occupation listed, in Table 4.2. The occupation provides above-average wages, with an average hourly wage of nearly \$23. The spread of wages in the Lincoln Metropolitan Area is tight, in the \$20 to \$25 range. These above-average wages were open to Associate's Degree and Bachelor Degree holders. Two-thirds of employers indicated that it was difficult to hire workers in this occupation. Employers reported that there was a lack of experienced workers but the principal concern was wage demands which were "too high." Two-thirds of employers would provide new workers with a certificate course.

Licensed Practical Nurse is the third occupation listed, in Table 4.3. The occupation provides moderate wages, with an average hourly wage of nearly \$16. The spread of wages in the Lincoln Metropolitan Area is again tight around the average. These wages were open to Associate's Degree holders in a program qualifying for a Nebraska state license. Nearly four out of five employers indicated that it was difficult to hire workers in this occupation but employers did not collectively point out any particular barriers related to skill or experience. Given the specialized degree required, there was not always need for job-specific training for newly hired workers, although one-third of employers would provide a formal training course.

Nursing Assistant is the fourth occupation listed, in Table 4.4. The occupation provides modest wages, with an average hourly wage of \$10.50. The spread of wages in the Lincoln Metropolitan Area is again tight around the average. These wages were open to GED holders with half of employers naming GED as the minimum required education level although a few employers mentioned a High School Degree or an Associate's Degree. More than one quarter of employers did not mention a specific degree requirement although state certification is required through a Nursing Assistant course or a Medicine Aid course. Three-quarters of employers indicated that it was difficult to hire workers in this occupation. Nearly 70 percent indicated a poor work history was a reason while 20 percent mentioned a failed background check. Interestingly, nearly four in ten employers mentioned wage demand which were "too high" in this modest wage occupation. Most newly hired workers received in-house training, usually in the form of a course with no certification but a full certification in one-third of cases.

Retail Sales Worker is the fifth occupation listed, in Table 4.5. Retail sales workers show a contrasting profile to many of the other occupations which have been identified. Employers report much less difficulty in finding qualified workers in this modest wage occupation perhaps due to an ability to tap into Lincoln's large student labor force. Difficulties in finding workers are more clearly tied to a poor work history than to occupation-specific skills and experience.

Average hourly wages are \$12. However, there is also a higher wage end to the market for retail

workers selling more expensive items. These workers also require state certification. When training is required, an in-house course is provided.

Customer Service Representative is the sixth occupation listed in Table 4.6. The occupation provides modest wages, with an average hourly wage just over \$12. The spread of wages in the Lincoln Metropolitan Area is fairly wide with wages ranging from \$9 to \$15 per hour, in part depending on the amount of technical knowledge required to respond to customer inquiries. These wages were open to GED holders in 60 percent of the cases but a High School Degree was required 30 percent of the time. Three in five employers indicated it is hard to find workers in this occupation. Lack of experience, occupation-specific skills and failed background checks were all significant sources of difficulty in hiring, and "too high" wage demands were mentioned in another 50 percent of cases. Training was required for new hires to build the product knowledge base required to provide customer service for a particular employer. Full certification courses were provided 40 percent of the time and college or community college courses 20 percent of the time.

Carpenter is the seventh occupation listed, in Table 4.7. The occupation pays moderate wages, with an average hourly wages of \$17. The occupation was available to appropriately skilled workers with either a GED or High School degree and some employers did not have any education requirement. Experience is a key mechanism for developing skill in this occupation. Businesses reported substantial difficulty in finding skilled construction workers and this issue was reinforced for the specific case of carpenters. Specifically, 100 percent of employers reported that it was difficult to find workers. Most employers mentioned experience rather than particular certificate requirements. Poor work history was an issue in just over 50 percent of cases as was wage expectations which were "too high." The latter result is not surprising given the difficulty employers face in finding workers.

Bus and Truck Mechanics and Diesel Engine Specialists is the eighth occupation listed, In Table 4.8. The occupation provides moderate wages, with an average hourly wage of nearly \$18. Hourly wages can rise to \$25 for the highest skill workers. Most employers required an Associate's Degree but experienced workers with a GED or even less had opportunities. More than 80 percent of employers indicated it is hard to find workers in this occupation. A lack of experience and occupation-specific skills were cited by 60 percent of employers but these factors did not explain the higher level of difficulty in finding workers. The issue could be an insufficient number of workers with the appropriate degree training. Training was not required for newly hired workers in all cases but both courses and certificates were required in 50 percent of cases.

Heavy and Tractor-Trailer Truck Drivers is the ninth and final occupation listed, In Table 4.9. The occupation provides moderate wages, with an average hourly wage of just over \$17, with wages in a fairly tight range around that average. Most employers accept workers with either a GED or High School degree although some had no specific education requirement. However, workers were required to have a Commercial Driver's License and many were required to have a Class A license. Hiring these workers was difficult with 100 percent of businesses reporting that it was difficult to hire heavy truck drivers. Employers were not especially focused on experience, work history or occupation-specific skill. The principal difficulty appears to be finding available workers with the sufficient training to obtain a Commercial Driver's License. Training was often not required for newly hired workers and courses without a certificate were offered in most cases where training was required.

A general finding from these profiles is that above average and average wage occupations are available to workers with a High School Degree/GED or with an Associate's Degree, either through an appropriate field of study, training, or work experience. Training also led to modest wages in some cases, particularly for workers with a GED or High School Degree. There were substantial differences in the difficulty business faced in finding workers.

Table 4.1: Software Developers, Application, Non R&D (15-1034)

Wage	
Mean	\$29.21
Median	\$30
High	\$37.50
Low	\$21.03
Education Requirements	
None	0.0%
GED	0.0%
High School	14.3%
Associate's Degree	42.9%
Bachelor's Degree	42.9%
Certificates Required	None
Experience Mentioned?	29%
It is Difficult to Find Workers	86%
Why is It Difficult to Find Workers	
Lack of Work Experience	17%
Poor Work History	0%
Lack of Occupation Specific Skills	50%
Failed Background Check	0%
Wage Demands Too High	17%
Lack Required Licenses/Certificates	0%
Language Barrier	0%
Other	0%
Training Needs	
In-House	57%
Out-of-House	43%
Class But No Certification	29%
Certification Course	43%
College of Community College Course	14%

Table 4.2: Registered Nurse (29-1141)

Wage	
Mean	\$22.85
Median	\$23.13
High	\$25.00
Low	\$20.60
Education Requirements	
None	0.0%
GED	0.0%
High School	0.0%
Associate's Degree	50.0%
Bachelor's Degree	50.0%
Certificates Required	RN License
Experience Mentioned?	0%
It is Difficult to Find Workers	67%
Why is It Difficult to Find Workers	
Lack of Work Experience	75%
Poor Work History	0%
Lack of Occupation Specific Skills	50%
Failed Background Check	0%
Wage Demands Too High	100%
Lack Required Licenses/Certificates	0%
Language Barrier	0%
Other	0%
Training Needs	
In-House	83%
Out-of-House	50%
Out-or-nouse	30%
Class But No Certification	33%
Certification Course	67%
College of Community College Course	0%

Table 4.3: Licensed Practical Nurse (29-2061)

Wage	
Mean	\$15.71
Median	\$16
High	\$17.90
Low	\$14.00
Education Requirements	
None	0.0%
GED	0.0%
High School	0.0%
Associate's Degree	100.0%
Bachelor's Degree	0.0%
Certificates Required	Nebraska State License
Experience Mentioned?	0%
It is Difficult to Find Workers	78%
Why is It Difficult to Find Workers	
Lack of Work Experience	29%
Poor Work History	29%
Lack of Occupation Specific Skills	29%
Failed Background Check	0%
Wage Demands Too High	29%
Lack Required Licenses/Certificates	14%
Language Barrier	0%
Other	0%
Training Needs	
In-House	100%
Out-of-House	11%
Class But No Certification	33%
Certification Course	11%
College of Community College Course	0%

Table 4.4: Nursing Assistants (31-1014)

Wage		
Mean	\$10.50	
Median	\$10.50	
High	\$12.50	
Low	\$9.00	
Education Requirements		
None	26.3%	
GED	47.4%	
High School	15.8%	
Associate's Degree	10.5%	
Bachelor's Degree	0.0%	
	4000/ 1	(400() 44 11 1 41 1 0 (400()
Certificates Required		ursing Assistant Course (48%), Medicine Aide Course (48%), rtification (5%)
Certificates Required	other cer	tilication (5%)
Experience Mentioned?	5%	2 years
·		,
It is Difficult to Find Workers	74%	
Why is It Difficult to Find Workers		
Lack of Work Experience	36%	
Poor Work History	71%	
Lack of Occupation Specific Skills	29%	
Failed Background Check	21%	
Wage Demands Too High	36%	
Lack Required Licenses/Certificates	29%	
Language Barrier	0%	
Other	0%	
Turking No. 1.		
Training Needs	4000/	
In-House	100%	
Out-of-House	5%	
Class But No Certification	63%	
Certification Course	32%	
College of Community College Course	0%	
Other	0%	
	3,0	

Table 4.5: Retail Salesperson (41-2031)

College of Community College Course

Wasa		
Wage	ć11 00	
Mean	\$11.90	
Median	\$12	
High	\$22.50	
Low	\$9.00	
Education Requirements		
None	22.2%	
GED	44.4%	
High School	33.3%	Note: Some businesses hire students still in High School
Associate's Degree	0.0%	
Bachelor's Degree	0.0%	
Certificates Required	Sales Licer	nse (22%)
Experience Mentioned?	22%	
It is Difficult to Find Workers	45%	
Why is It Difficult to Find Workers		
Lack of Work Experience	40%	
Poor Work History	60%	
Lack of Occupation Specific Skills	20%	
Failed Background Check	20%	
Wage Demands Too High	20%	
Lack Required Licenses/Certificates	0%	
Language Barrier	0%	
Other	0%	
Training Needs		
In-House	73%	
Out-of-House	9%	
Class But No Certification	AF0/	
Certification Course	45% 18%	
Certification Course	18%	

0%

Table 4.6: Customer Service Representative (43-4051)

Wage Mean	\$12.08
Median	12
High	\$15.50
Low	\$9.00
Education Requirements	
None	0.0%
GED	60.0%
High School	30.0%
Associate's Degree	10.0%
Bachelor's Degree	0.0%
Certificates Required	None
Experience Mentioned?	0%
It is Difficult to Find Workers	60%
Why is It Difficult to Find Workers	
Lack of Work Experience	67%
Poor Work History	33%
Lack of Occupation Specific Skills	67%
Failed Background Check	50%
Wage Demands Too High	50%
Lack Required Licenses/Certificates	0%
Language Barrier	17%
Other	0%
Tueining Noods	
Training Needs In-House	1000/
Out-of-House	100%
	20%
Out-oi-nouse	
Class But No Certification	70%
	70% 40%

Table 4.7: Carpenter (47-2031)

College of Community College Course

Wage		
Mean	\$16.86	
Median	\$17	
High	\$20.00	
Low	\$14.00	
Education Requirements		
None	14.3%	
GED	42.9%	
High School	42.9%	
Associate's Degree	0.0%	
Bachelor's Degree	0.0%	
Coufficates Damiirad	LEAD proc	(1.49/)
Cerfticates Required	LEAD prog	gram (14%)
Experience Mentioned?	57%	Note: Trade school was sometimes mentioned
P		as a substitute for experience
It is Difficult to Find Workers	100%	·
Why is It Difficult to Find Workers		
Lack of Work Experience	100%	
Poor Work History	57%	
Lack of Occupation Specific Skills	100%	
Failed Background Check	29%	
Wage Demands Too High	57%	
Lack Required Licenses/Certificates	0%	
Language Barrier	14%	
Other	0%	
Training Needs	740/	
In-House	71%	
Out-of-House	14%	
Class But No Cerfification	43%	
Sidds but two certification		
Certification Course	43%	

0%

Table 4.8: Bus and Truck Mechanics and Diesel Engine Specialists (49-3031)

Wage	
Mean	\$17.93
Median	\$17
High	\$25.00
Low	\$12.00
Education Requirements	
None	16.7%
GED	16.7%
High School	0.0%
Associate's Degree	66.7%
Bachelor's Degree	0.0%
Certificates Required	17% (varied)
Experience Mentioned?	17%
It is Difficult to Find Workers	83%
Why is It Difficult to Find Workers	
Lack of Work Experience	60%
Poor Work History	0%
Lack of Occupation Specific Skills	60%
Failed Background Check	0%
Wage Demands Too High	20%
Lack Required Licenses/Certificates	20%
Language Barrier	0%
Other	0%
Training Needs	
In-House	67%
Out-of-House	50%
Class But No Certification	50%
Certification Course	50%
College of Community College Course	17%

Table 4.7: Heavy and Tractor-Trailer Truck Drivers (53-3032)

Wage	
Mean	\$17.13
Median	\$17.15
High	\$22.00
Low	\$12.00
Education Requirements	
None	9.1%
GED	54.5%
High School	36.4%
Associate's Degree	0.0%
Bachelor's Degree	0.0%
Certificates Required	CDL Class A (50%), CDL (50%), Hazmat (8%)
Figure 1 and	170/ 1.2
Experience Mentioned?	17% 1-2yrs
It is Difficult to Find Workers	100%
Why is It Difficult to Find Workers	
Lack of Work Experience	45%
Poor Work History	45%
Lack of Occupation Specific Skills	45%
Failed Background Check	27%
Wage Demands Too High	0%
Lack Required Licenses/Certificates	82%
Language Barrier	0%
Other	0%
Training Needs	
In-House	73%
Out-of-House	18%
	4504
Class But No Certification	45%
Certification Course	18%
College of Community College Course	0%

5. Conclusion

This report utilized the results of the *Make it Work for Lincoln* employer survey to evaluate challenges faced by businesses when hiring and the types of training employers provide. The survey also asked whether the availability of labor was a key factor influencing firm expansion. Business responses indicated that the availability of workers is a significant challenge faced by regional businesses and the issue has potential to delay or even stow economic growth in the Lincoln Metropolitan Area, especially for goods-producing industries like manufacturing.

A majority of businesses reported that applicants with a lack of work experience and occupation-specific skills made it difficult to hire. More than four in ten also reported that applicants with a poor work history made it difficult to hire. Failed background checks and "too high" wage demands were cited by approximately one-quarter of employers. Taken together, these issues represent a wide array of challenges in hiring. However, a careful look at these issues by industry and occupation reveal patterns. In particular, employers hiring within a particular occupation may only face one or two significant difficulties, creating a more manageable problem with potentially more actionable solutions.

A lack of occupation specific skill was a particular concern for two white collar and two blue collar occupations. Among white collar jobs, the two occupations were manager and business and computer and mathematical occupations. Among blue collar jobs, the two occupations were installation, maintenance and repair workers and production workers. There may be a particular need to have training certification courses available in these industries. Indeed, as is reported below, employers are more likely to provide certification courses to newly hired workers in these occupations. Workers in blue collar occupations also would benefit from learning skills on the job whether through formal apprenticeship programs or through periods of lower wage work as helpers and other support occupations.

Poor work history and failed background checks were a more common concern for selected service workers and blue collar workers. Among service occupations, the occupations were health care support workers and food preparation and serving related workers. Among blue collar jobs, there was a heightened concern about work history and failed background checks for construction occupations and transportation and material moving occupations. These results point to a second set of interventions beyond traditional training programs. Particularly in these occupations, some workers appear to have made themselves difficult to hire due to behaviors that led to a failed background check or a poor work history. One potential area for policy is to design and encourage pathways and practices whereby workers can improve their

work history and address issues which are checked on background. Successful efforts in this regard could be very productive for workers. There also could be great benefits to the business community, which would benefit from expansion in the pool of viable and employable workers.

Wage rates appear to be a barrier to hiring in a third set of occupations and industries which report an elevated share of candidates who make wage demands which are "too high." This issue impacted the health care industry and four occupation groups in particular: business and profession operations, healthcare practitioners and technical workers, personal care and service occupations and office and administrative support occupations. In these occupations, employees, employers, or both need to adjust their wage expectations. Supply and demand conditions may provide some insight as to whether employers or workers need to adjust most. Business and professional occupations and office and administrative support occupations were two occupations where employers were least likely to report that it was difficult to find workers. This suggests limited pressure or need on the part of employers to adjust wage scales. On the other hand, personal care and service workers were the second most difficult occupation to find workers, according to employers. Employers may consider raising the compensation of these lower income workers, many of whom work in the health care industry or as childcare workers. Employers may need to raise wages for health care practitioners and technical occupations as well, although the supply and demand conditions are more typical in this occupation group.

The second goal of this report was to examine the training which businesses provide to newly hired workers. Respondents to the survey reported that businesses provide job-specific training to newly hired workers in 76 percent of occupations. More than half of employers provide training courses without a certification while over one-third provide certification courses. Less than one in ten employers provide a full college or community college course.

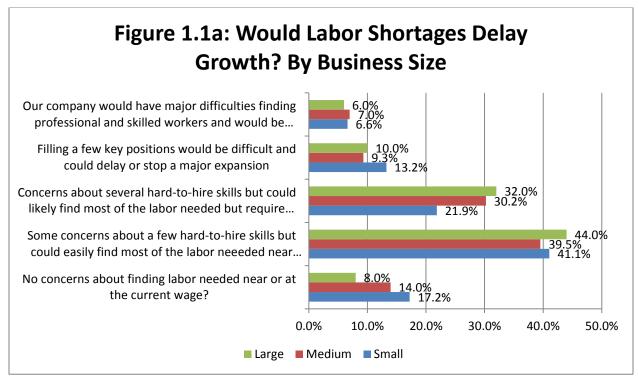
Large shares of new hires were provided training in all industries and occupations, although training was less common in several blue collar occupations including construction and extraction workers, production workers, and transportation and material moving workers.

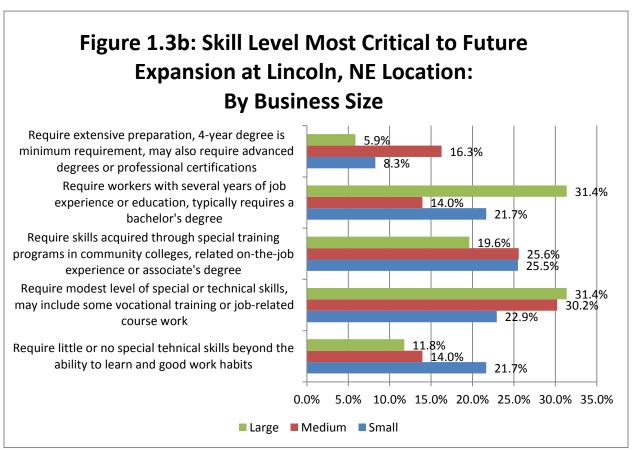
Certification courses were most common for computer and mathematical occupations, installation, maintenance and repair occupations, management occupations and personal care and service occupations. Full college or community college courses are most common for these same four occupations as well as for architecture, engineering and science occupations.

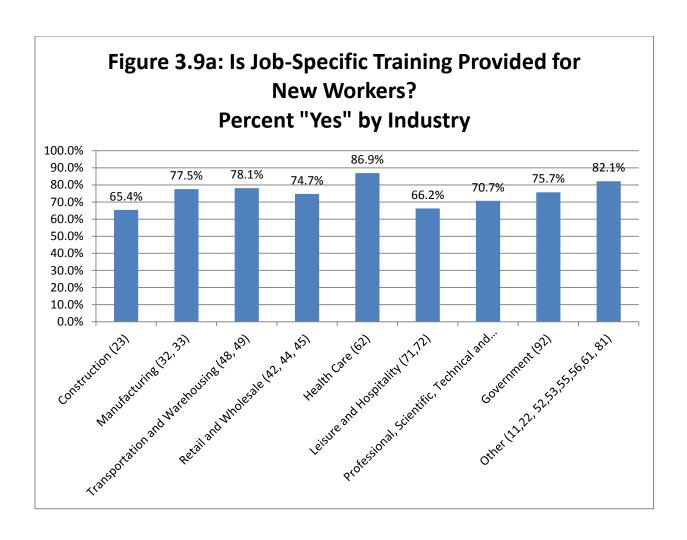
Nearly all workers who received training participated in in-house training. However, responding businesses indicated that out-of-house training was provided to new workers in 28 percent of occupations. Generally speaking, out-of-house training is more likely for new hires in higher skill white collar occupations, with the exception of personal care and service workers.

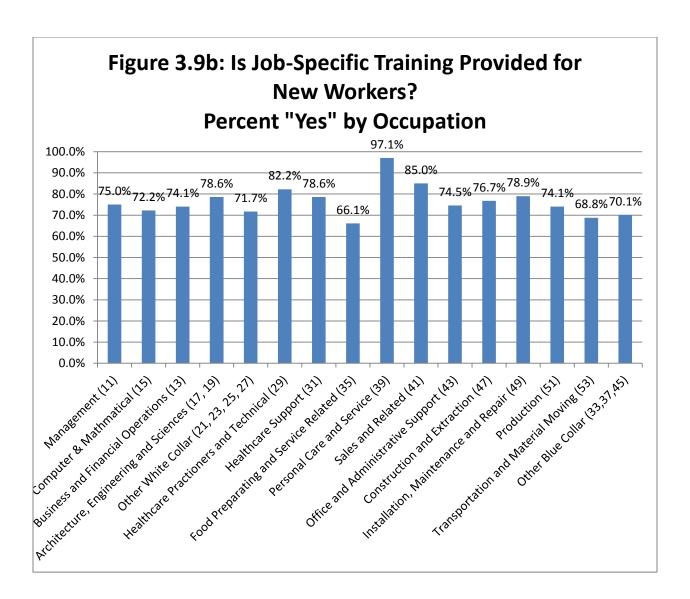
Blue collar occupations are near average in the use of out-of-house training with the exception of the elevated share for installation, maintenance and repair workers. Out-of-house training is least common for many lower skill and service occupations.

Appendix 1: Additional Figures and Tables









Appendix 2: Make It Work for Lincoln Survey







 ${\tt Department of Economic \, Development} \ \ LABOR$

ASTD-Lincoln is changing to ATD Lincoln to support the growing needs of a dynamic, global profession

Make It Work for Lincoln 2014 | Employment Survey of Workforce Needs | Lincoln Metropolitan Area

The following survey is designed to gather information about the hiring and training needs of Lincoln area employers.

The survey should be completed by an owner, senior manager, human resource personnel or first-line supervisor who is knowledgeable about the hiring and training needs of this company.

The survey has three short sections:

- 1) Business characteristics
- 2) Requirements for newly hired workers
- 3) Training needs of existing workers

The individual completing the survey should provide their contact information below in case the research team needs to contact them with a follow-up question:

	Name: Email:	
--	--------------	--

Section 1: Business Characteristics

1) How many years has this business been operating?	5) Does your company use the following so	ervices t	o find
O Less than 1 year	employees? (Select yes or no)		
○ 1 to 5 years		Yes	No
○ 6 to 10 years	Your company website	0	0
O More than 10 years	Online job boards	0	0
2) Approximately what percentage of your employees	Newspaper	0	0
are full-time and what percentage are part-time?	Radio or television	0	0
% full-time	Job listings at postsecondary insti- tutions	0	0
% part-time	NEworks.nebraska.gov website	0	0
3) Approximately what percentage of your employees	Word-of-mouth	0	0
are temporary or seasonal employees? (Please write	Internet and social media	0	0
"0" if you have no temporary or seasonal employees) % temporary or seasonal	Other (Please describe):		
4) How many job openings do you currently have? (Please write "0" if you do not have any job openings)			
Job openings			

whether an applicant is currently working? (Select the best answer)	nearest answer)	<u>r indust</u>	<u>ry</u> ? (Select	the
○ Strongly considered	All or nearly all have exposite closely related industry	erience	in my indu	stry or a
Somewhat consideredSlightly considered	Most have experience in related industry	my indu	istry or a c	losely
O Not considered at all	- Some have experience in	my indi	ustry or a d	closely
7) Generally speaking, when hiring, what is your new	related industry			
worker's occupational experience? (Select the near-	Few or no workers have or a closely related indus		nce in my i	ndustry
est answer)	or a closely related indus	LI Y		
O All or nearly all workers have experience in the same occupation or a closely related occupation				
Most workers have experience in the same occupation or a closely related occupation				
Some workers have experience in the same occupation or a closely related occupation				
Few or no workers have experience in the same occupation or a closely related occupation				
 9) If asked to consider a possible major expansion at this tion of the ease of obtaining the necessary labor? (Selection of the ease of obtaining the necessary labor) of the ease of obtaining the necessary labor? 	ect the nearest answer)	st descr	ibes your (evalua-
Some concerns about a few hard-to-hire skills but co		need nea	er or at cur	rent
wage levels				
Concerns about several hard-to-hire skills but could er wage offerings	likely find most of the labor need	ed but w	ould requ	ire high-
Filling a few key position would be difficult and could	d delay or stop a major expansion			
Our company would have major difficulties finding pundertake a major expansion for this reason	professional and skilled workers ar	nd would	d be unlike	ly to
10) Which of the following best describes workers' skill levels most critical to future expansion at your Lincoln, Nebraska location? (Please select the top three answers)				
		First choice	Second choice	Third choice
Require little or no special or technical skills beyond habits (Examples include waiters, stock clerks, labore		0	0	0
Require modest level of special or technical skills, maing or job-related course work (Examples include menursing aides, cooks, telemarketers, stock clerks, teal truck and tractor operators)	dical laboratory technicians,	0	0	0
Require skills acquired through special training prograted on-the-job experience or associate's degree	rams in community colleges, re-	0	0	0
Require workers with several years of job experience a bachelor's degree	e or education, typically requires	0	0	0
Require extensive preparation, 4-year degree is mini quire advanced degrees or professional certification:		0	0	0

6) When hiring, how much does your business consider

8) Generally speaking, when hiring, what is your new

Section 2: Requirements for Newly Hired Workers

° → · · · · · · · · · · · · · · · · · ·	
12) Think about workers this business is trying to hire or hired recently. What are the top three occupation titles for workers you have been trying to hire or recently hired?	17) Is it difficult to find workers for occupation 1? ○ No → Please go to question 19 ○ Yes →
2.	18) Why is it difficult to find workers for occupation 1? (Check all that apply) Lack of work experience Poor work history
13) For occupation 1 listed in question 12, please describe the main duties and responsibilities for workers with this occupation title:	Lack occupation specific skills Failed background check Wage demands too high Lack required licenses/certificates Language barrier Other (Please describe)
14) What is the average starting wage or salary (as appropriate) you are willing to pay workers in occupation 1?	19) Beyond basic employee orientation, is additional job-specific training provided for new workers in occupation 1? ○ No → Please go to question 22
Dollars per hour Dollars per year 15) What is the minimum educational degree required for workers in occupation 1? (GED, high school diploma, associate's degree, bachelor's degree, etc.)	○ Yes —
16) What training, licenses or certificates are required for workers in occupation 1?	

22) For occupation 2 listed in question 12, please de-	26) Is it difficult to find workers for occupation 2? ○ No ——→ Please go to question 28			
scribe the main duties and responsibilities for workers with this occupation title:				
Crawith this occupation true.	○ Yes —			
	27) Why is it difficult to find workers for occupation 2? (Check all that apply)			
	Lack of work experience			
	Poor work history			
	Lack occupation specific skills			
	Failed background check			
	Wage demands too high			
	Lack required licenses/certificates			
23) What is the average starting wage or salary (as ap-	Language barrier			
propriate) you are willing to pay workers in occupa-	Other (Please describe)			
tion 2?				
• Dollars per hour				
Dollars per year	28) Beyond basic employee orientation, is additional job-specific training provided for new workers in occupation 2?			
24) What is the minimum educational degree required	○ No ——→ Please go to question 31			
for workers in occupation 2? (GED, high school diplo-	○ Yes ───			
ma, associate's degree, bachelor's degree, etc.)				
	29) Would that training be provided in-house or out-of-house? (Please check all that apply)			
	☐ In-house			
	Out-of-house			
25) What training, licenses or certificates are required	30) What type of training would be provided for workers in occupation 2? (Check all that apply)			
for workers in occupation 2?	Class but no certification			
	Certification course			
	College or community college course			
	Other (Please describe)			

31) For occupation 3 listed in question 12, please de-	35) Is it difficult to find workers for occupation 3?
scribe the main duties and responsibilities for workers with this occupation title:	○ No ——→ Please go to question 37
ers with this occupation true.	○ Yes ──
	36) Why is it difficult to find workers for occupation 3? (Check all that apply)
	Lack of work experience
	Poor work history
	Lack occupation specific skills
	Failed background check
	Wage demands too high
<i></i>	Lack required licenses/certificates
32) What is the average starting wage or salary (as ap-	Language barrier
propriate) you are willing to pay workers in occupa-	Other (Please describe)
tion 3?	
Dollars per hour	
Domais per nour	
Dollars per year	37) Beyond basic employee orientation, is additional
	job-specific training provided for new workers in oc-
22) What is the minimum educational degree required	cupation 3?
33) What is the minimum educational degree required for workers in occupation 3? (GED, high school diplo-	○ No ——→ Please go to question 40
ma, associate's degree, bachelor's degree, etc.)	○ Yes ——
	38) Would that training be provided in-house or out-of-house? (Please check all that apply)
	☐ In-house
	Out-of-house
34) What training, licenses or certificates are required for workers in occupation 3?	39) What type of training would be provided for workers in occupation 3? (Check all that apply)
	Class but no certification
	Certification course
	College or community college course
	Other (Please describe)

40) Please list any additional occupations (besides the three listed previously) for which it is hard to find workers. In the areas to the right, please describe the duties of that position and indicate why it is difficult to find workers.								
					Why is it difficult to find workers?			
Occupation title		Description of dutie			(Check all that apply)			
	1.				c of work ex			
					or work histo			
1.	-				k occupatior		kills	
,	J				ed backgrou			
					ge demands			
					k required lic		tificates	
				Lan	guage barrie	ers		
				Oth	er (Please d	escribe)		
				J				
							J	
	2.			<u></u>	c of work ex	-		
					or work histo			
2.					coccupation		kills	
					ed backgrou			
					ge demands			
					k required lid		tificates	
				<u></u>	guage barrie			
				Oth	er: (<i>Please d</i>	describe)		
2				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				
41) About how many of the <i>full-time</i> workers at this company are eligible for the following benefits?			42) About how many of the <i>part-time</i> workers at this company are eligible for the following benefits?					
	All workers	Some workers	No workers		All workers	Some workers	No workers	
Health insurance	0	0	0	Health insurance	0	0	0	
Dental insurance	0	0	0	Dental insurance	0	0	0	
Vision insuranœ	0	0	0	Vision insuranæ	0	0	0	
Retirement	0	0	0	Retirement O		0	0	
Paid vacation	0	0	0	Paid vacation 🔘		0	0	
Paid holidays	0	0	0	Paid holidays O		0		
Paid sick leave	0	0	0	Paid sick leave	0	0	0	
Tuition reimburse- ment	0	0	0	Tuition reimburse- ment	0	0	0	

43) Do you find deficiencies among your current workforce in the following areas? (Select yes or no)					
	Yes	No			
Leadership skills	0	0			
Interpersonal skills	0	0			
Computer skills	0	0			
Written communication	0	0			
Sales skills	0	0			
Adaptability/versatility	0	0			
Professional conduct	0	0			
Critical thinking/analytical skills	0	0			
Customer service	0	0			
IT (developers/programmers, system engineers)	0	0			
Ability to work independently	0	0			
Project management	0	0			
Working in teams	0	0			
Work ethic	0	0			
Sense of urgency	0	0			
Patienœ	0	0			
44) To your knowledge, what is the job-holding status of	your emp	loyees?			
All or most hold multiple jobs					
O Some hold multiple jobs					
None hold multiple jobs					
O We do not keep track of outside employment	We do not keep track of outside employment				
45) How have you changed company hiring or training po	olicies to ac	ddress difficulties in attracting or hiring new em-			
ployees?					
)			

Please continue to back page

Section 3: Training Needs of Existing Workers

46) Please list the 3 most common occupation titles in your business's current workforce. In the areas to the right of the first boxes, please describe each occupation's major duties and required skills and the required licenses and certificates for that position. **Required licenses** Occupation title or certificates Description of duties and skills 1. 1. 1. 2. 2. 2. 3. 3. 47) Please list any additional training that workers in each occupation listed above may need. In the areas to the right, indicate where that training would occur and what type of training it would be. Training needed **Training location** (i.e., new skill for current position, cross training for another position) (Check all that apply) Training type (Check all that apply) Class but no certification 1. Certification course College or community college course In-house Out-of-house Other (Please describe): Class but no certification Certification course In-house College or community college course Out-of-house Other (Please describe): Class but no certification In-house Certification course Out-of-house College or community college course Other (Please describe):

Appendix 3: About the Bureau of Business Research and Key Personnel

A. The Bureau of Business Research

The Bureau of Business Research is a leading source for analysis and information on the Nebraska and Great Plains economy. The Bureau conducts both contract and sponsored research on the economy of states and communities including: 1) economic and fiscal impact analysis; 2) models of the structure and comparative advantage of the current economy; 3) economic, fiscal, and demographic outlooks, and 4) assessments of how economic policy affects industry, labor markets, infrastructure, and the standard of living. The Bureau also competes for research funding from federal government agencies and private foundations from around the nation and contributes to the academic mission of the University of Nebraska-Lincoln through scholarly publication and the education of students. The Bureau website address is www.bbr.unl.edu.

B. Key Personnel

Dr. Eric Thompson – Principal Investigator

Dr. Eric Thompson is an Associate Professor in the Department of Economics at the University of Nebraska-Lincoln. He received his Ph.D. in Agricultural Economics from the University of Wisconsin-Madison with an emphasis in community economic development. He has served as Director of the Bureau of Business in the College of Business Administration at the University of Nebraska-Lincoln since August 2004.

Under the auspices of the Bureau of Business Research, Dr. Thompson spearheads a quarterly publication, *Business in Nebraska*. The Bureau partners with the Nebraska Business Forecast Council to dedicate two issues of *Business in Nebraska* to forecasting the Nebraska business climate, wages and employment outlook. The remaining two issues cover diverse and timely topics facing the state of Nebraska. In 2011, he began publishing a monthly Leading Economic Indicator report. These publications are free and available via email and at the Bureau website, bbr.unl.edu.

Professor Thompson has published 10 peer reviewed articles in journals such as *Journal of Regional Science, American Journal of Agricultural Economics*, and *Regional Science and Urban Economics*. Thompson has served as President of both the Nebraska Economics and

Business Association (NEBA) and the Association for University Business and Economic Research (AUBER). His book, co-authored with Professor William Walstad, Entrepreneurship in Nebraska: Conditions, Attitudes, and Actions, was published in 2008.

Throughout his career Thompson has received over one hundred national and local grants from organizations such as the U.S. Department of Transportation, U.S. Chamber of Commerce, National Association of State Courts, Nebraska State Historical Society, Platte Institute for Economic Research, Nebraska Department of Roads, and Lincoln Chamber of Commerce.

Contact Information:

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